# VISUAL SAMPLE PLAN BERYLLIUM SAMPLING DOE NETL-ALBANY



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## Visual Sample Plan



- A powerful planning software tool for environmental sampling (e.g., soils, surface waters, buildings)
- Supports decision-making
- ATL used the VSP software for beryllium sampling at a DOE site in Oregon
- The <u>VSP maps</u> were captured to picture maps that presented a summary of <u>sample results</u>

## Background

- ATL was contracted by NETL-Albany to perform a site beryllium assessment and characterization
- Phase I (2005) identified and sampled in areas where beryllium work took place
- Phase II (2006) surface sampling in buildings identified during Phase I

# Sampling Design (Phase II)

- Sampling areas called homogenous sampling areas (HSAs)
- HSAs were identified by NETL-Albany
- A survey area with uniform characteristics for sampling purposes
- HSAs were based on:
  - Historical information
  - Room use (e.g., lab, machine shop, offices)
  - Phase I sample results

#### **HSA** into VSP

- NETL provided
  - CAD drawings
  - building and room dimensions
- CAD drawings were converted to dxf files which could be imported into VSP
- 59 random samples were selected in each HSA

# Characterization (Phase II)

- Characterized areas above compliance thresholds
  - 0.2 μg/100cm² (10 CFR part 850)
  - 2.62 mg/kg the UCL of the derived soil background
- The results were used
  - to ensure compliance with applicable regulations
  - to evaluate the need for future actions

## Verification Sampling

- ATL was contracted by NETL-Albany to verify the clean-up/remediation of buildings and equipment (2008)
- HSAs were identified by NETL-Albany
- HSAs were based on
  - Phase II sample results
  - remediation activities

# Visual Sample Plan



### Complete the Picture

- Picture maps were captured VSP maps
- Picture maps present
  - sample identification number
  - sample pictures
  - sample locations
    - X and Y coordinates
    - wall, floor, ceiling
  - sample type
    - random
    - judgmental
    - re-sample

